

AMIGA

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WORKBENCH

FOR THE COMMODORE AMIGA USER

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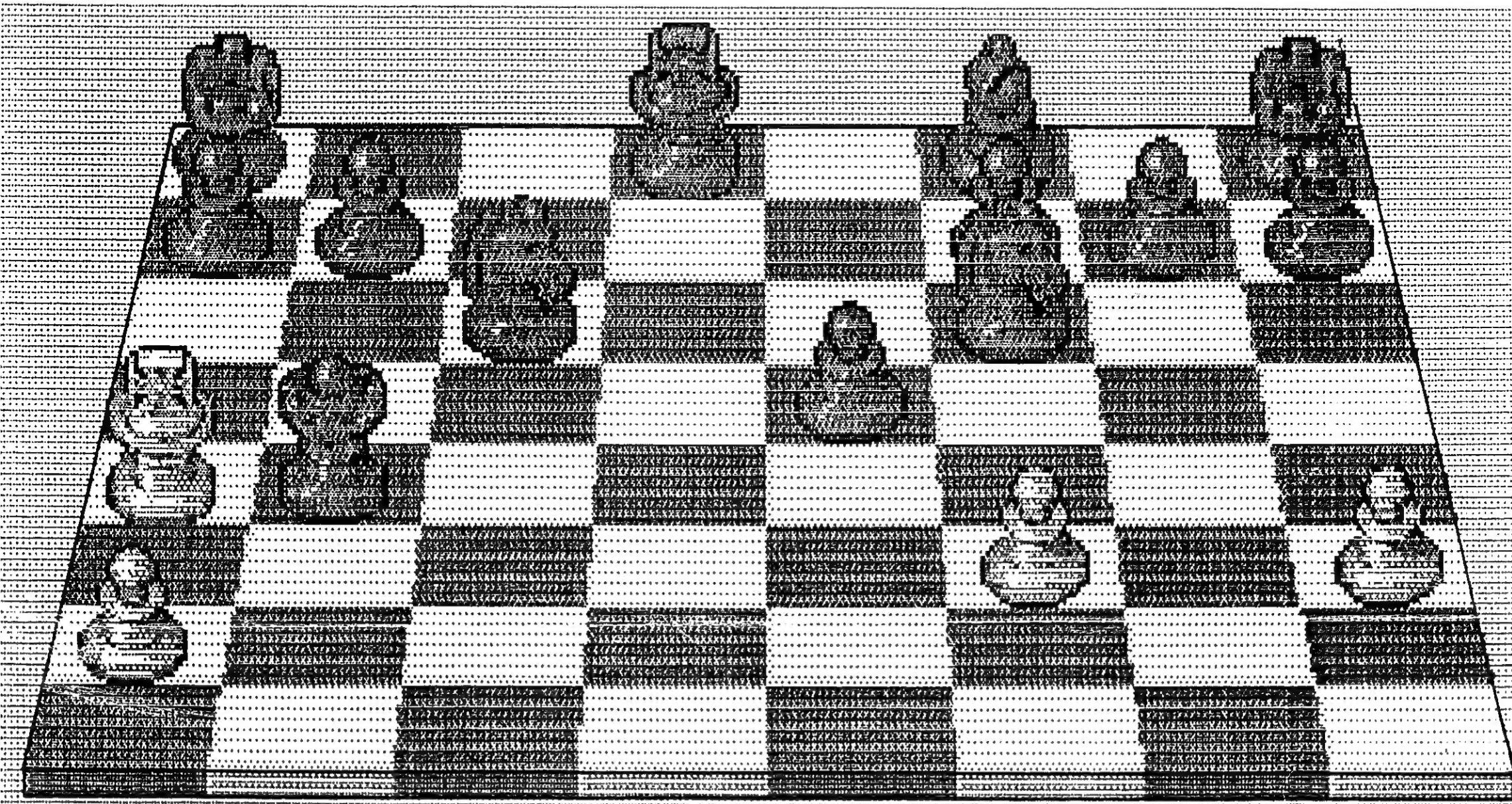
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Announcing AUG's New Bulletin Board

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Next Meeting

Sunday, April 12th, 1987 at 2pm

AUG meetings are held at Victoria College, Burwood Campus
in Lecture Theatre 2. Melways map 61 reference B5.

Amiga Users Group, PO Box 48, Boronia, 3155, Victoria, Australia

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AMIGA™ Users Group

P.O. Box 48, Boronia, 3155, Victoria, Australia

Amiga Users Group

The Amiga Users Group is a non-profit, self-help group, made up of people interested in the Amiga computer and related topics.

Club Meetings

Club meetings are held at 2pm on the second Sunday of each month at Victoria College, Burwood Campus, in Lecture Theatre 2. Details on how to get there are on the back cover of this newsletter. The dates of the next few meetings are:

Sunday, April 12th at 2pm
 Sunday, May 10th at 2pm (Mother's Day)
 Sunday, June 14th at 2pm

Production Credits

This month's Amiga Workbench was edited by Peter Jetson. Equipment and software used was: TurboDOS S-100 computer, Diablo 630 printer, Gemini 10x printer, Wordstar, Fancy Font and Grabbit.

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Contributions

Articles, papers, drawings and cartoons are actively sought for publication in Amiga Workbench. It would be appreciated if contributions were submitted on disk, since that means they don't have to be re-typed! We have access to a wide range of computers, so we should be able to accept almost any type of disk, but Amiga disks are certainly the easiest. All disks will be returned! Please save your article in **text-only** format. Absolute deadline for articles is 16 days before the meeting date. Contributions can be sent to:

The Editor, AUG, PO Box 48, Boronia, 3155
 (Note the new address)

Have you noticed our change of address?

AUG Users Group Disks

Disks from the Amiga Users Group Library are available on quality 3.5" disks for \$10 each including postage on AUG supplied disks, or \$2 each on your own disks. We can also provide 80 track 5.25" Amiga format to special order. Please enquire. The group currently holds 66 public domain volumes, mostly sourced from the USA, with more on the way each month.

Member's Discounts

The Amiga Users Group is currently negotiating discounts for its members on hardware, software and books. Members will be notified when negotiations are complete.

Currently, Technical Books in Swanston Street in the city offers AUG members a 10% discount on computer related books, as does McGills in Elizabeth Street. Just show your membership card. Although we have no formal arrangements with other companies yet, most seem willing to offer a discount to AUG members. It always pays to ask!

Membership and Subscriptions

Membership of the Amiga Users Group is available for an annual fee of \$20. To become a member of AUG, fill in the membership form in this issue (or a photocopy of it), and send it with a cheque for \$20 to:

Amiga Users Group, PO Box 48, Boronia, 3155

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When phoning committee members, please try to be a bit considerate and not call at meal-times, late at night, or during popular TV programs. If you only have a general query, try to ring the member who lives closest to you.

R J Mical at the Boston Computer Society

On Monday March 2, RJ Mical (=RJ=) spoke at the Boston Computer Society meeting in Cambridge. Fortunately I was momentarily possessed with an organizational passion, and I took copious notes. I present them here filtered only through my memory and my Ann Arbor. My comments are in [square brackets].

What follows is a neutron-star-condensed version of about three and one half hours of completely uninterrupted discussion.

PART 1 - The Rise and Fall of Amiga Computer Inc.

The Early Days

Amiga Computer Inc. had its beginnings, strangely enough, RJ began, with the idea of three Florida doctors who had a spare \$7 million to invest. They thought of opening a department store franchise, but (as RJ said) they wanted to try something a bit more exciting. So they decided to start a computer company. "Yeah, that's it! A computer company! That's the ticket! :-)"

They found Jay Miner, who was then at Atari (boo hiss) and Dave Morse, the VP of sales (you can see their orientation right off...) they lifted from Tonka Toys. The idea right from the start was to make the most killer game box they could. That was it, and nothing more. However Jay and the techies had other ideas. Fortunately they concealed them well, so the upper management types still thought they were just getting a great game machine. Of course the market for machines like that was hot hot hot in 1982...

They got the name out of the thesaurus; they wanted to convey the thought of friendliness, and Amiga was the first synonym in the list. The fact that it came lexically before Apple didn't hurt any either, said RJ.

However before they could get a machine out the door, they wanted to establish a "market presence" which would give them an established name and some distribution channels - keep thinking "game machine" - which they did by selling peripherals and software that they bought the rights to from other vendors. Principal among these was the Joyboard, a sort of joystick that you stand on, and you sway and wiggle your hips to control the switches under the base. They had a ski game of course, and some track & field type games that they sold with this Joyboard. But one game the folks at Amiga Inc. thought up themselves was the Zen Meditation game, where you sat on the Joyboard and tried to remain perfectly motionless. This was perfect relaxation from product development, as well as from the ski game. And in fact, this is where the term Guru Meditation comes from; the only way to keep sane when your machine crashes all the time is the ol' Joyboard. The execs tried to get them to take out the Guru, but the early developers, bless 'em, raised such a hue and cry they had to put it back in right away.

When RJ interviewed with Amiga Computer (he had been at Williams) in July 1983, the retail price target for the Amiga was \$400. Perfect for a killer game machine. By the time he accepted three weeks later, the target was up to \$600 and rising fast. Partly this was due to the bottom dropping completely out of the game market; the doctors and the execs knew they had to have something more than just another game box to survive. That's when the techies' foresight in designing in everything from disk controllers to keyboard (yes, the original original Amiga had NO KEYBOARD), ports, and disk drives began to pay off.

The exciting part of the Amiga's development, in a way its adolescence, that magical time of loss of innocence and exposure to the beauties and cruelties of the real world, began as plans were made to introduce it, secretly of course, at the winter CES on January 4th, 1984(?)

Adolescence

The software was done ten days before the CES, and running fine on the simulators. Unfortunately when the hardware was finally powered up several days later, (surprise) it didn't match its simulations. This hardware, of course, was still not in silicon. The custom chips were in fact large breadboards, placed vertically around a central core and wired together round the edges like a Cray. Each of the three custom 'chips' had one of these towers, each one a mass of wires. According to RJ, the path leading up to the first Amiga breadboard, with its roll-out antistatic flooring, the 'antistatic walls just wide enough apart for one person to fit through and all the signs saying Ground Thyself, made one think of nothing so much as an altar to some technology god.

After working feverishly right up to the opening minutes of the CES, including most everybody working on Christmas, they had a working Amiga, still in breadboard, at the show in the booth in a special enclosed gray room, so they could give private demos. Unfortunately if you rode up the exhibit-hall escalator and craned your neck, you could see into the room from the top.

The Amiga was, RJ reminisced, the hardest he or most anyone there had ever worked. "We worked with a great passion...my most cherished memory is how much we cared about what we were doing. We had something to prove...a real love for it. We created our own sense of family out there."

After the first successful night of the CES, all the marketing guys got dollar signs in their eyes because the Amiga made SUCH a splash even though they were trying to keep it "secret." And so they took out all the technical staff for Italian food, everyone got drunk and then they wandered back to the exhibit hall to work some more on demos, quick bug fixes, features that didn't work, and so on. At CES everyone worked about 20 hours a day, when they weren't eating or sleeping. RJ and Dale Luck were known as the "dancing fools" around the office because they'd play really loud music and dance around during compiles to stay awake. Late that night, in their drunken stupor, Dale and RJ put the finishing touches on what would become the canonical Amiga demo, Boing. At last the true story is told.

Money Problems

After the CES, Amiga Inc. was very nearly broke and heavily in debt. It had cost quite a bit more than the original \$7 million to bring the Amiga even that far, and lots more time and money were needed to bring it to the market. Unfortunately the doctors wanted out, and wouldn't invest any more. So outside funding was needed, and quick.

The VP of Finance balanced things for a little while, and even though they were \$11 million in the hole they managed to pay off the longest-standing debts and keep one step ahead of Chapter 11. After much scrounging, they got enough money to take them to the June CES; for that they had REAL WORKING SILICON. People kept peeking under the skirts of the booth tables asking "Where's the REAL computer generating these displays?"

Now money started flowing and interest was really being generated in the media. And like most small companies, as

soon as the money came in the door it was spent. More people were added - hardware folks to optimize and cost-reduce the design; software people to finish the OS. Even the sudden influx of cash was only enough to keep them out of bankruptcy, though; they were still broke and getting broker all the time. How much **WOULD** have been enough? RJ said that if he were starting over, he'd need about \$49 million to take the machine from design idea to market. Of course Amiga Inc. had nowhere near that much, and they were feeling the crunch. Everybody tightened their belts and persevered somehow. They actually were at one point so broke they couldn't meet their payroll; Dave Morse, the VP of Sales, took out a second mortgage on his house to help cover it, but it still wasn't enough.

They knew they were going under, and unless they could find someone quick to buy them out they were going to be looking for jobs very shortly. They talked to Sony, to Apple, to Phillips and HP, Silicon Graphics (who just wanted the chips) and even Sears. Finally...they called Atari. (Boo! Hiss! [literally - the audience hissed at Jack Tramiel's name!]) Trying to be discreet, RJ's only personal comment on Jack Tramiel was (and it took him a while to formulate this sentence) "an interesting product of the capitalist system." Ahem. Apparently Tramiel has been quoted as saying "Business is War." Tramiel had recently left Commodore in a huff and bought Atari "undercover" so that by the time he left C= he was already CEO of Atari.

Realizing that Commodore was coming out with their own hot game machine, Tramiel figured he'd revenge himself on them for dumping him by buying Amiga Inc. and driving C= down the tubes with "his" superior product. So Atari gave them half a million just for negotiating for a month; that money was gone in a day.

Of course Tramiel saw that Amiga Inc. wasn't in a very good bargaining position; basically unless they were bought they were on the street. So he offered them 98 cents a share; Dave Morse held out for \$2.00. But instead of bargaining in good faith, every time Morse and Amiga tried to meet them halfway their bid went down!

"Okay, \$1.50 a share.

No, we think we'll give you 80 cents.

How about \$1.25?

70 cents."

And so on...

Even Dave Morse, the staunchest believer in the concept that was the Amiga, the guiding light who made everyone's hair stand on end when he walked into the room, was getting depressed. Gloom set in. Things looked grim.

Then, just three days before the month deadline was up, Commodore called. Two days later they bought Amiga Inc. for \$4.25 a share. They offered them \$4.00, but Dave Morse TURNED THEM DOWN saying it wasn't acceptable to his employees; he was on the verge of walking out when they offered \$4.25. He signed right then and there.

The Commodore Years

Commodore gave them \$27 million for development; they'd never seen that much money in one place before. They went right out and bought a Sun workstation for every software person, with Ethernet and disk servers and everything. The excitement was back.

Commodore did many good things for the Amiga; not only did they cost-reduce it without losing much functionality, they had this concept of it as a business machine; this was a

very different attitude from what Amiga Inc. had been working with. Because of that philosophy, they improved the keyboard [hal - garyo] and made lots of other little improvements that RJ didn't elaborate on.

What could Commodore have given them that they didn't? The one thing RJ wanted most from them was an extra 18 months of development time. Unfortunately Commodore wasn't exactly rich right then either, so they had to bring out the product ASAP [and when is it ever any different?] Also, he said, they could have MARKETED it. (applause!). If he'd had that extra 18 months, he could have made Intuition a device rather than a separate kind of thing; he could have released it much more bug-free.

As far as marketing goes, the old ad agency has been fired; we should see some new Amiga ads real soon now.

The Future

RJ's advice for A1000 owners: "Keep what you've got. It's not worth it to trade up. The A1000 is really a better machine." This may be sour grapes on RJ's part, since the Amiga 2000 was designed in Braunschweig, West Germany, and the version of the A2000 being worked on in Los Gatos was rejected in favor of the Braunschweig-Commodore version. However the A1000 compares to the A2000, though, the Los Gatos 2000 would have certainly been better than either machine. C= management vetoed it because Braunschweig promised a faster design turnaround (and, to their credit, were much faster in execution than the Los Gatos group would have been) and more cost-reduction, which was their specialty. Los Gatos, on the other hand, wanted a dream machine with vastly expanded capabilities in every facet of the machine. The cruel financial facts forced C= to go with the Business Computer Group, who did the Sidecar in Braunschweig as well, and quickly and cheaply.

So they fired more than half the staff at the original Los Gatos facility, one by one. That trauma was to some extent played out on the net; no doubt many of you remember it as a very difficult and emotional time. There are now only six people left in Los Gatos, and their lease expires in March, so thus expires the original Amiga group.

And that's how RJ ended his talk; the rise and fall of Amiga Computer Inc. The future of the Amiga is now in the hands of Westchester and Braunschweig, and who knows what direction it will take?

PART 2 - Technical Questions From the Audience

I'll just make this part a list of technical questions and answers, since that was the format at the talk anyway. This part is part technical inquiries and part total rumor mill; caveat emptor.

Q's are from the audience, A's are =RJ=.

Q: When is 1.3 coming and what's in it?

A: 1.3 (or maybe it'll be called 1.2A) will be mostly just 1.2 with hard disk boot; it'll look for Workbench on dh0; as well as df0;. No one is working on it right now, although there are people in W.Chester planning it.

Q: Can you do double buffering with Intuition?

A: Pop answer: No. Thought-out: well, yes, but it's not easy. Use MenuVerify and don't change the display while menus are up. It's pretty hairy.

Q: How big is intuition (source code)?

A: The listings (commented) are about a foot thick, 60 1pp, 1 inch margins.

Q: Where did MetaComCo come into the Amiga story?

A: MCC's AmigaDos was a backup plan; the original Los Gatos-written AmigaDos was done with some co-developers who dropped out due to contract and money hassles when C= bought Amiga. Then MCC had to crank EXTREMELY hard to get their BCPL Dos into the system at the last possible minute.

Q: Why isn't the Sidecar out?

A: Who knows? It passed FCC in December...

Q: Why no MMU?

A: Several reasons. Obviously, cost was a factor. MMUs available at the time the Amiga was designed also consumed system time [this is what he said- I'm just the scribe]; although newer MMUs solve this problem they were too late for the Amiga. Third, the original goal of the Amiga was to be a killer game machine with easy low-level access, and an MMU didn't seem necessary for a game machine. Third [get this!] with an MMU, message-passing becomes MUCH MUCH hairier and slower, since in the Amiga messages are passed by just passing a pointer to someone else's memory. With protection, either public memory would need to be done and system calls issued to allocate it, etc., or the entire message would have to be passed. Yecch. So the lack of MMU actually speeds up the basic operation of the Amiga several fold.

Q: Why no resource tracking?

A: The original AmigaDos/Exec had resource tracking; it's a shame it died.

Q: How is your game coming? [??]

A: It's just now becoming a front-burner project. It's number crunch intensive; hopefully it will even take over the PC part of the 2000 for extra crunch. It's half action, half strategy; the 'creation' part is done, only the playing part needs to be written. Next question, :-)

Q: Will there ever be an advanced version of the chip set?

A: Well, Jay Miner isn't working on anything right now... [RUMOR ALERT] The chip folks left in Los Gatos who are losing their lease in March were at one time thinking about 1k square 2meg chip space 128-color graphics, although still with 4 bit color DACs though... and even stuff like a blitter per plane (!!) They were supposed to be done now, in the original plans; they chip designers will be gone in March, but the design may (?) continue in Westchester. Maybe they'll be here two years from now.

Q: What will happen to the unused Los Gatos A2000 design?

A: ??????

Q: Should I upgrade from my 1000 to a 2000?

A: Probably not. The 2000 isn't enough better to justify the cost. Unless you need the PC compatibility, RJ advocated staying with the 1000. After all the 2000 doesn't have the nifty garage for the keyboard...:-) The A1000 keyboard is better built; you can have kickstart on disk; it's smaller and a LOT quieter, [maybe not than the old internal drives!!!] and uses less power; the 2000 has no composite video out, plus the RGB quality is a tad worse. Composite video (PAL or NTSC) is an extra-cost option with the 2000.

Q: Have you ever seen a working Amiga-Live!

A: Yes, I've seen it taking 32-color images at 16fps, and HAM pictures at something like half that. [!!] It's all done and working. I don't know why it's not out. It sure beats

Digiview at 8 seconds per image!

Q: What do you use for Amiga development tools?

A: DPaint and Infominder, Aztec C, Andy Finkel's Microemacs.

Q: What's the future of the A1000?

A: They aren't making any right now; they're just shipping from stock. But they do claim that they intend to continue making them.

Q: Is MetaComCo's stuff all really slow, or what? :-)

A: Yes, it is slow. But don't knock it, it works.

Q: Who is the competition for Amiga right now?

A: The new Macs are so expensive, they're not a threat to the 2000, much less the 1000. Atari's new stuff "doesn't impress me." [that's all he said.]

Q: What can I do about lack of Amiga ads, and the quality of the ones that do exist?

A: Write (don't call) Clive Smith in Marketing at Westchester and tell him they need better ads.

Q: Why are the pixels 10% higher than wide?

A: The hardware came out that way, and it would have been a pain to do it any other way due to sync-rate=multiple timing constraints.

Notes

The preceding tome was produced entirely by placing my terminal cable just next to the microwave on high and wiggling it around like !*(&t%h5i@!, so don't take any of it too seriously. :-)

-- Gary Oberbrunner

Notes from Another Observer

Thanks for the summary, Gary, you did a great job! Alas, a couple of things:

>the 2000 has no composite video out, plus the RGB quality is a tad worse.

No, he said he *heard* that the *composite* video was worse (when you buy the composite board option). RGB is fine.

>Q: What do you use for Amiga development tools?

>A: DPaint and Infominder, Aztec C, Andy Finkel's Microemacs.

He also said he's a creature of habit, and just uses what he's used to, even though there may be better tools available. No endorsements here.

Lastly, all the information presented should be taken with a grain of salt - some of my recollections of what he said differed from what Gary remembered. Also, I think some of the things he said were a little tongue-in-cheek. He used the phrases "I think", "I heard" and "I remember" quite a bit.

RJ is quite a speaker, nonetheless, and a Nice Guy too.

-- Bob Page

Scribble!

Whilst it is true that real hackers don't use word processors, the facts of the matter are that most computer users are not hackers. That is why I was delighted to see a review of Scribble! by Micro-Systems Software Inc. in the January 1987 issue of Byte magazine. There is then a recognition that word processors are an essential program for your average user. It is also true that there are word processors and word processors. In the first group, one finds simple icon driven word processors which enable you to do little more than use your Amiga as typewriter. In the latter group, you find word processors that enable you to set up a page as you wish it to be and to be able to merge files or set up custom forms or type personalised letters to a number of people. Some are also able to manage that from the keyboard or with the mouse. Scribble! is able to meet the criteria which puts it into the latter category.

The program comes well packaged and supported. I would however agree with the Byte reviewer who remarked that the instruction book is a mess. There does not appear to be any logical sequence to the way in which information is presented. Against this, I will say that if you have a query and you are prepared to wait a while for an answer, then you can simply write to Micro-Systems. This is certainly faster than support from Commodore in Sydney.

You can open Scribble! from either Workbench using an icon, or from the CLI. Either way, it loads fairly quickly. You get a 24 line screen with indicators at the bottom telling you the cursor position, what mode you are in, and what typestyle you are currently using. Access to documents is through a pull down menu. On choosing archives, you are presented with a requester which then begins to load the directory of your document files. If the document you want appears early in the list, you can select it by clicking it into the file selection box and then clicking 'get', which immediately loads the file. When you save a document, Scribble! automatically appends .doc to the filename. Also in archives, you can select 'general', which gives a complete listing of the disk directory, enabling you to store data files or ascii files separately. The other menu selections enable you to look at the default options to set up format files and save them (for producing custom designed forms).

Another useful feature of Scribble! is the use of "dot" commands. These enable you to embed format commands in your document and to make use of features in your printer. These ":" commands can be non-printing or printing as desired (handy for checking your draft documents), and they include headers and footers, with automatic page numbering or date inclusion. As well, you can bypass the built in commands and format a file to a disk so that it will print up on a bulletin board as you typed it and set it out.

Scribble! offers multi window capacity, and you are able to run at least four separate windows and cut and paste from one to the other. There are some odd things about Scribble! about which I intend to write to the manufacturers. One is that one cannot simultaneously print a document and work on another document. In view of the multitasking capability of the Amiga, this is a little disappointing. It is important, however, that you can run other programs on your Amiga whilst you have Scribble on board. In fact I have run a diary program, a spreadsheet, Superbase and Scribble! in my 512k machine with no significant problems. It really is very handy to be able to flip between these programs as they are needed.

A really nice feature of Scribble! is the one-key resave. F4 is used for this and F3 is used as a one key text centering facility. I have found Scribble! a delight to use under Kickstart 1.2, the "BYTE" reviewer found problems under V1.1 which I did not experience. Finally, in addition to all the very nice goodies, you get a spelling checker which is very quick and knows some remarkable (!?) words. It also will learn any words you want to teach it and also it can easily be installed on your ram:disk making it even faster. I can thoroughly recommend Scribble! to anyone as excellent value for money.

-- David Peel

Amiga 500 in US for \$649

The Amiga 500, the new low-cost member in Commodore's family of 68000-based computers, was officially announced in West Germany in March, but details regarding its availability in the US were not disclosed. Commodore has since released more information about the machine.

The new computer, which physically resembles a C-128, will cost \$649 and will be available "before summer." It has 512K bytes of memory, which can be expanded with an optional cartridge to 1 megabyte. This memory can be expanded further using unannounced external options for a total of up to 9 megabytes. The company says the Amiga 500 will be 100 percent compatible with all software running under version 1.2 of the operating system on the older Amiga 1000. As with the 2000, the Amiga Kernal is supplied in 256K ROM.

The machine has parallel and serial ports that use "industry-standard" connectors, Commodore says. The keyboard has 94 keys, arranged in a manner similar to that of the new IBM AT keyboard, and one 3.5-inch floppy disk drive in its side. An 86-pin expansion bus connector is also provided for attaching future peripherals. A clock/calendar is included on the optional memory cartridge. An optional unit converts the computer's RGB output to both NTSC video and RF-modulated video.

-- from MicroBytes

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Son of Interesting Stuff

This is the beginning of what I hope will be a regular feature with information similar to Peter Jetson's "interesting stuff" column.

And now, direct from Commodore, at great expense to the management, details of the new Amigas. The Amiga 500 should be available in May at a recommended retail price of \$999. This price includes 512K of RAM, one 3.5 inch disk drive and a RF connector so that you can plug in a TV set, but this price does not include a monitor. By now most people have seen what the new Amigas will look like but for those that haven't the A500 looks like a cross between a Commodore 128 and an Atari 1040ST. It was rumoured that the A500 would come with one Meg on board; this is incorrect, but an "internal 512K and clock/calendar board" is available from Commodore. This board plugs into a connector under the keyboard to give one Meg and a battery backed clock, and is priced at \$299.

The A500 has parallel, serial and disk drive ports and an 86 pin "Zorro" expansion bus, BUT it is upside down to that on the A1000. This is because the A500 has the internal drive on the left hand side so the bus got stuck on the right side and because of this, no existing A1000 expansion bus peripherals will fit on to the A500.

The A2000 should be available in June at a cost of \$2999. The A2000 will come standard with one Meg of RAM, one 3.5 inch disk drive, with a compartment for a second 3.5 drive and a compartment for a 5.25 inch drive. The 3.5" internal disk drive will be priced at \$299 and the internal 5.25 disk drive will also be priced at \$299. Internally, the A2000 has "one 86 pin slot for CPU extensions such as a MC68020 / 68881 turbo board, five 100 pin slots with auto-configuration feature, two IBM PC/AT full size slots and two IBM PC/XT full size slots". This is where things get complicated- two of the "Zorro" slots and two of the XT slots overlap, that is two slots can be used for Amiga slots OR IBM slots giving a total of seven slots in the A2000.

So what can you put in all these slots, I hear you ask? Well, from Commodore there will be a two Meg RAM board for \$899, a hard disk / SCSI controller board for \$799, and an Amiga bridgeboard which is an 8088 board for MS-DOS compatibility, priced at \$799. An 80286 board is expected soon, but no prices are available as yet.

Commodore's "official" position on the A1000 is that they no longer have the A1000 on the production line. They are still shipping from stock and will respond to demand, if people still want to buy the A1000, Commodore will keep on making them. Present owners of Amigas are in a good position to upgrade their Amigas to take A2000 boards with several third party vendors working on expansion boxes to give the A1000 all the slots of the A2000 at a cost of \$500-\$700. Also, the A500 and A2000 have been brought in line with the industry standard and no longer supply power through parallel and serial ports, so peripherals like Future Sound will not run without major re-design. All prices above have been given in Australian dollars.

Commodore have also announced a new TV and magazine advertising campaign to begin in the near future, with John Laws as the presenter of the Amiga.

Although Microsoft has no plans to produce software for the Amiga, Microsoft Press have released a book titled "The Amiga Images, Sound, and Animation" by Michael Boom. The book covers subjects in an easy to follow manner, with coverage of graphics, sound, and animation in Amiga basic as well as Dpaint, Dvideo, and Dmusic. The book is priced at \$29.95.

The Amiga is also getting more press than it used to with AHOY magazine starting a regular column from the Feb 87 issue, Commodore magazine February issue has a fractal generator written in Amiga basic that sounds interesting, and Transactor magazine has an article on assembler for the Amiga with one page of source code and an article on programming the Amiga with six pages of "C" source.

-- Fergus Bailey

Modula-2 Survey

It was Christmas 1986 and I looked forward to four weeks annual leave and the joys of learning Modula-2. I had become resigned to the fact that I would use the public domain Modula-2 over TDI's version. However, I didn't expect to face the problems I encountered.

Hopefully the following survey will help others just starting out on the Modula-2 path and cause others more proficient to contact me with sage-like words of advice.

The closest I had come to a language like Modula-2, or its predecessor Pascal, was Algol on a Burroughs machine no less. (My current employer would turn blue in the face if he knew....)

The two compilers I will refer to are:

TDI Software Inc, of Texas USA Modula-2, henceforth called TDI. Available in a Regular version about \$165 and Developer's version about \$275.

Public Domain Modula-2 developed at the ETH Zurich, Switzerland. This is on Fred Fish disk 24. Henceforth called ETHZ.

On reading an article last year in APC (ref 5), I was attracted to Modula-2 as a successor to Pascal. Although the TDI software was for an Atari, I knew they had a version for the Amiga. Would the Amiga version be runnable from Workbench and operable by icons as the Atari version was? Maxwell kindly allowed me to test drive the TDI version. The demo programs were impressive, especially the graphics ones. However, I found it is only operable via the CLI. I thought, why should I pay x hundred dollars for a CLI compiler when the ETHZ version gave the same functionality.

The ETHZ version should be set up on its own disk. Here the files aldpge, aldpge1 and executefile (all detailed below), a c directory with ALoad (and any programs you want to run from within a M2 program), and a m2 directory with all the M2 programs in it should be set up. Using this method, you run M2 from the CLI. The compiler seems to take up a large amount of memory. Don't use more than 72K ram disk or you will get the Guru. Read the textual file ReadMe.DOK very carefully. Although it said that "the loader is case sensitive", I overlooked that and hence couldn't get the loader to work. All program execution and compilation works through the loader called ALoad. This has the disadvantage that a M2 program can't be executed directly from the CLI, but a partial solution to this is mentioned below. Although the loader is case sensitive, the compiler isn't. The compiler is accessed via the loader and is called M4PM. You can keep compiling many modules without getting out of the compiler even if you have errors, as the error listings are concatenated to the error file. If you get the message "key mismatch ALoad failed returncode 12", then try recompiling.

There are a number of demo programs on the disk with source and object code given. Some of the demos don't work as they should, and at least one has the wrong source code. TrapTest causes the Guru, GraphicDemo has a pretty screen, but it locks up the system and the module date doesn't seem to work out the month properly. For example, for the 1/1/87 it will return "1 unknown 1987". Although I could code a brute force method of getting the correct date, there is probably someone who has devised a more elegant method.

A fairly simple exercise in M2 code and using the ETHZ system is to alter the demo program WaitForBreak.MOD. Before changing any code, make a copy of the source as I did: WaitForBreakPGE.MOD. Also change the module name (and END statement) to WaitForBreakPGE. Now a successful compilation won't overwrite the original demo's object code. WaitForBreak has the drawback that there is no delay before exit, therefore the last screen message is flashed up on the screen too fast to read. The solution is to add the statement "Delay(50); and recompile. The exit line is "WriteString("ctrl-detected"); WriteLn; Delay(50); EXIT". You also need to import Delay by adding the line "FROM AMIGADOS IMPORT Delay;".

Now that this easy problem is solved, it's time to move on to the demo MenuDemo.

My initial approach was to simply change one of the textual words in a menu and recompile. However, when I recompiled, I got error messages. To a novice user this was confusing to say the least. Eventually the bugs were overcome. It is clear that the source is a prefain listing showing the programmer's dilemma as to which of two basic approaches to take in developing menus. His procedure AllocString tries to automatically calculate the length of menu text instead of manually doing so but the paragraph is unreferenced. I have corrected this after reference to another demo, for completeness.

I used the public domain program dif on Fish Disk 51 to generate the differences between my working source code MenuDemo.PGE.MOD and the ETHZ source MenuDemo.MOD. Dif is a powerful program and it only required the command:

```
dif df0:m2/MenuDemo.MOD df0:m2/MenuDemoPGE.MOD df0:Menudif
```

to write the changes out to the file Menudif. To correct the source add the global variables:

```
s1, s2, s3, s4, s5, s6, s7, s8, s9: ARRAY [0..18] OF CHAR;
```

in AllocString modify:

```
WHILE (i<=HIGH(st)) & (st[i]#0C) DO INC(i) END;
```

FOR j:=0 TO i-1 DO s^j:=st[j] END;

in NewMenu modify

```
NewMenu(VAR menuName: ARRAY OF CHAR; menuWidth etc
```

name:=ADR(menuName);

in AddMenu modify

```
AddMenu(VAR menus: MenuPtr; VAR menuName: ARRAY OF CHAR;
```

menuWidth etc.

When this has been compiled and run you will note that the menu texts are completely different from the ETHZ executable module. As a guide to making your own pop down menus the following chart can be used as a basis. It shows the current menu texts and the procedures used to create them. (In some cases the procedure names have been abbreviated.)

Proc	Text	Proc	Text	Proc	Text
NewMenu	Modula 2			Settings	
AddNMI	Compiler	AddMenu		Baud	
AI	Window	AddNMI		Length	
				AI	
				to back	
	ANSI			to front	
				AI	
	Quit				
AI					

It is very important to place at least one item under a menustrip item least you create some interesting graphics and hence need to reboot.

The module MenuDemo has one omission in that the intuition routine ClearMenuStrip is not invoked. The following procedure will handle this function:-

```
PROCEDURE ClearMenuStrip(w: WindowPtr);
Var r: Regs;
BEGIN
  r.a[0]:=LONGINT(w);
  LibCall(intuibase, -540, r)
END ClearMenuStrip;
```

It is called just before CloseWindow and is written:-

```
ClearMenuStrip(w);
```

Any other low level routines can be called in a like manner by reference to the ROM manual.

You can decrease array space by making ARRAY different lengths for each text. Note that the length of the array should be one more than the text length.

One problem that remains is that when a menu item is selected there is no way for that items identifying number to be detected and then passed on for some action to be taken. To do this requires setting up message pointers and detecting the MENUPICK flag.

Trying to read in a character array such as a 8 digit password proved difficult as the ReadString procedures were not allowing the 8th character. An example of a variable would be

```
VAR Password: ARRAY [0..7] OF CHAR;
```

The solution was to modify one line in the ReadString procedure in the module InfoTest.MOD to read:-

```
ELSIF (ch' ') & (ch<del) & (pos<=HIGH(st)) THEN
```

This will also disallow the delete character from being read in and acted upon.

If you want to execute another program from within one of your modules you need to import Execute by:-

```
FROM AMIGADos IMPORT AMIGAFile, Execute;
```

and then some code such as:-

```
VAR f1, f2: AMIGAFile;
  ok: BOOLEAN;
f1:=AMIGAFile(0);
f2:=AMIGAFile(0);
Execute("program-name parameter", f1, f2, ok);
```

The program-name needs to reside in the c directory if you utilise the following example setups. You may have to put "assign c: df0:c" into aldpge1. If you find you are getting the requester

- Please replace volume x in any drive - then reply cancel.

The batch file aldpge consists of:-

```
cd df0:c
date
assign m2: df0:m2
newcl "CON:0/0/640/200/==One pass Modula-2 Demo Disk ==="
stack 10000
ALoad
```

From the CLI type "execute aldpge" and this will run the loader ready for compilation or whatever.

The batch file aldpge1 consists of:-

```
cd df0:c
date
assign m2: df0:m2
stack 10000
copy df0:executefile to ram:
ALoad < ram:executefile
```

From the CLI type "execute aldpge1" and this will automatically run the named M2 program in the file executefile.

The file executefile consists of:-

```
your-M2-program-name
```

Overall then the ETHZ Modula-2 can provide the basic routines a programmer needs. It certainly provides the basic routines for a non WIMP environment. By providing for the MENUPICK option the basic WIMP features can be handled. It also needs someone to sweep all the intuition procedures into a intuition definition module so that other programmers can easily use them.

On the 10th March I learnt from TDI that they have released a new version for the Amiga with Workbench support and which runs under DOS 1.2. This is called version 3.0 and upgrades from version 2.0 are available. (Note that Richard Bielak states in ref 3 p13 he is using version 2.00A. And that Byte Jan 1987 p293 states that their review of the 2.00A version of TDI M2 has been withheld until the new version is released "when Commodore/Amiga releases the new version of its Kickstart system software")

Prices are US\$ 149.95 Developers or upgrade at 49.95. Commercial 299.95 or upgrade at 59.95. Examples(many of the C programs from ROM Kernel and Intuition translated into M2) is available at 24.95. GRID (a multikey access method handling variable length records) is available at 49.95. It will be interesting to see the level of Workbench support and compare the Atari and Amiga versions. It would also be an interesting exercise to compare the TDI and ETHZ versions.

(This article presupposes a 512K machine using version 1.1 of the operating system.)

ERROR MESSAGES

Unfortunately the ETHZ system does not come with an error message list. The following list details the ones I have experienced, with their probable meanings.

If you are having run time troubles then a good diagnostic line to insert in your code is the following:-

```
LOOP Read(ch); IF ch=cr THEN EXIT; END; END;
```

This will freeze any output being sent to your output window. To get your program running again just enter a carriage return.

Num	Example of error	Cause/Solution
29	CONST eight = 68C;	should have been 70C
39	WriteScreen proc	EXIT is only for loop statements
50	call.	should have said WriteString as WriteScreen doesn't exist.
	TYPE Alpha = [A..Z];	should have said ['A'..'Z']
52	CASE Option OF	should have said option
	array [0..1]	should be capitals
64	proc call error	proc call error
76	76	proc call should have received a result into a variable
77	END ReadString;	should have said ReadStringAgain as proc was defined as ReadStringAgain one more proc in DEF module than implementation module
89		incorrect WHILE statement.
117		incorrect UNTIL statement
122		no right hand brackets
133		mixing types
144	menuName[HIGH(menuName)]	menuName wasn't an array
396		typing in CASE statement wrong

RECOMMENDED TEXTS

- 1) Modula-2 Programming by Ian Kaplan and Mike Miller. Hayden Book Company 1986. ISBN 0-8104-6480-2 Recommended price \$42.95 at Tech Book. This was my first book on the subject and I used it for dipping into. It has proved invaluable in finding a quick answer to a problem.
- 2) Modula-2 Discipline & Design by Arthur Sale. Addison-Wesley Publishing Company 1986. ISBN 0-201-12921-3 Recommended price \$29.95 at Tech Book. Useful for getting a different slant on a problem, it is twice the size at 452 pages than the above. More indepth but at the same time suffers from a poor and incomplete index.

REFERENCES

- 1) Commodore Computing International Jan 1987. In its bound in insert Commodore Business and Amiga User p21 is a review of TDI's Modula-2.
- 2) Ami Project 1 no 4 1986 Modula-2 Review of TDI/Modula-2 compiler by Richie Bielak
- 3) Ami Project 1 no 5 1986 Modula-2 First Steps With Intuition by Richie Bielak p9-15 [Start of a tutorial using TDI Modula-2]
- 4) Ami Project 1 no 5 1986 The ETH Modula-2 Compiler by Lance J.Ahern p18-19 [Note that p18 was blank except for headings!]
- 5) Australian Personal Computer? mid 1986? Review of TDI Modula-2 for the Atari ST. An enthusiastic review depicting the full icon environment of the compiler etc.
- 6) Antic May 1986 5 no 1 Modula-2 by Tim Oren p66-7, 70.
- 7) Antic January 1987 5 no 9 Modula-2: Developers Version by Sol Guber p85-86. A more critical review pointing out a number of deficiencies of the TDI working environment, not the compiler as such.
- 8) Byte Jan 1987 p293

M2 PROGRAMS

- 1) HP-10C on Fred Fish disk 38 creates a pop down HP-10C calculator
- 2) Trails on Fred Fish disk 32
- 3) trails on Amicus disk 11 a moving worm graphics demo [same as program 2?]
- 4) caseconvert on Amicus disk 11 converts M2 keywords to uppercase [not seen]

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PM DEVELOPMENTS

Introduction to AmigaDOS Part 3

So far, we have looked briefly at some of the AmigaDOS commands that are found in the "c" directory of the Workbench disk. This month, we will examine a few more and examine more closely, the others we mentioned briefly.

ASSIGN

When the Amiga is booted from the Workbench disk, the filing system is initialized and disk volumes are logged. The operating system knows about certain logical directories, these are where it looks to find particular filetypes. These are:

SYS: or the system disk root directory
 C: Commands directory, where AmigaDOS looks for commands that you type on the command line.
 L: Libraries for the system like the Ram-handler etc
 S: Sequence directory where Execute files are found and in particular, the Startup-Sequence.
 LIBS: AmigaDOS looks here when your program tries to OPEN a library with the OpenLibrary call
 DEVS: Device library, things like the printer device and list of mounted devices (1.2 Kickstart) and system configuration.
 FONTS: AmigaDOS looks here when an OpenFonts call is done.
 T: Temporary workspace for programs such as Ed.

AmigaDOS assigns these logical devices to the real directories found on the Workbench disk. These logical directories are differentiated from the physical directories, by the use of upper case for the logical devices. You can re-assign any of the assignments made by AmigaDOS at startup by the Assign command. The format is: Assign (logical device) (physical directory). E.g. ASSIGN C: RAM:, will cause commands to be looked for in the RAM device. You can view what assignments are current by typing ASSIGN by itself, or ASSIGN LIST. NOTE. If you issue the command ASSIGN DFO:, the assignment is made to the Volume currently in drive 0, not to the drive unit itself. Assignments can be removed by issuing further assign's or by typing for example ASSIGN C:. Now there is no logical command device in the device lists of AmigaDOS.

Another nice use for ASSIGN is in making your own aliases. You don't know what an alias is? Well, a rose by any other name... You can ASSIGN a complex expression related to files to a short-hand notation e.g. ASSIGN e: c:/ed, now you can call up ed by typing e: from anywhere, regardless of which current directory you find yourself. See AUG Workbench Feb 87 for more info.

A word about Patterns

Sometimes you want to do something to a lot of files, but you don't want to have to list their individual names. With certain commands, we can use patterns to match occurrences of files we want to do the same things to. The most useful pattern matching or Wildcarding as it is often termed, is in transferring files from one device to another. Eg. COPY Balance.#? to DFI: will transfer all files which begin "Balance.", which may be Balance.june, Balance.march etc, to drive DFI: Wildcards on the Amiga can be quite complex unlike other systems where the "*" and "?" are used. Under AmigaDOS, the following symbols are used: '()'%#|

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? matches any single character
 % matches the null string
 #<pat> matches zero or more occurrences of the pattern <pat>
 <pat1><pat2> matches <pat1> followed by <pat2>
 <pat1>|<pat2> matches <pat1> or <pat2>
 () groups patterns together.

E.g.

Silly#? matches sillybuggers, sillyperson etc
 #?.#(info|let) matches all files ending in .info or .let

You may also specify directories within a pattern eg #?/#? - all files in all sub directories of the current directory. So you can see, you can create very powerful pattern specifications with simple expressions. For example if we want all c directory files to be copied, we would say COPY c/#? to dfl:, neat huh?

CLI's and more CLI's

A CLI can spawn other CLI's etc. The command NEWCLI does just this. A CLI created by this command will have the same priority, stacksize and current directory as its parent. Why would you open more than one CLI, I mean, aren't we having enough trouble with one?? Well the answer lies in the multi-tasking environment of the Amiga. We often want to be printing something out while we edit another piece or be communicating over a modem. Now on machines that are not multi-tasking, this is often accomplished by print spooling where the file to be printed is written to a diskfile first and later printed out at a more convenient time. Another way was for the machine to set up a pseudo multi-tasking environment with the printer program being in the background. An example is the old CP/M spooler. This works fine if your printer is fast, but mine has this problem where it ceases communications, when the buffer is full, while the print head is in the act of printing a line, and won't accept another thing until it has finished. This has the effect of stopping what the foreground job is doing while the blasted printer is polled to see if it is ready. Now on the Amiga, setting up another CLI to do the printing is a good idea because each CLI is a separate task and all tasks of the same priority have equal CPU time. Now the printer doesn't stop what the first CLI is doing, although the second CLI is hung up between print sweeps!

An interesting feature of a CLI is that you can open it to the serial device. If you plug in a serial terminal then you have a true multi user machine, although you obviously cannot have the graphics capability on the terminal. A catch is that there is a buffer between the terminal and the Amiga making this impractical to use. All we need is for someone to make a new serial.device with no buffering and we could make the Amiga truly multi-user.

We have some control of the configuration of the new CLI. We can specify its size and title with the "window" option. E.g. NEWCLI CON:20/15/300/100/myCLI will open a CLI window who's left topmost corner will be at x,y 20,15 and bottom right at 300,100 with the title: myCLI.

Other Commands**Date**

Unfortunately, the Amiga 1000 doesn't have a battery backed clock. This means that the system clock has to be set each time you switch the Amiga on. This is ok if you tend not to turn it off but it has to be set each time you re-boot anyway. This is what the date command is for. That's right it is used mainly to tell the blasted thing what time it is rather than finding out from it what the date and time is. You can set the date and time or each separately. Setting the date is cute. If you are within a week of the current date, you can say things like "Tuesday" or "Tomorrow" and the Amiga will know what you're talking about.

Delete

Damned useful little command. Obvious really - it deletes files, up to 10 named files, separated by "," or by pattern matching (see above). It will inform you as it deletes each file unless you tell it to shut up by the QUIET option. Delete also deletes directories unless they contain files in which case you have to delete all files in them first (easy with a wildcard).

Filenote

Reserved in the File Header Block of each file and directory on the disk is a place for up to 80 characters which can be anything you like that is descriptive. Filenote is for writing to that block. Your text is converted to a BCPL string and written. The comment is not copied from one version to another with COPY, similarly, if the file being overwritten has a file note attached, the new file will inherit it.

Fault

The cryptic error messages that AmigaDOS delivers after a command has failed, can have some light shed on them with the FAULT command. You can ask FAULT what the error means and hopefully, it will explain a little more fully than "error 121". I still like CP/M's "BDOS ERROR on A:" - for all read/write errors!

Info

Tells you about the Disk volumes available, what their size is, if they can be written to, their filenote, any soft errors that have occurred, free space left in percent used and blocks used. Info can tell if the disk in the drive is a DOS disk - it will display its name, otherwise it will label the disk as KICK - if it is the KICKSTART disk, Unreadable disk - if unformatted and NDOS - for a DOS disk with a corrupted structure.

List

List displays a file's size, attributes (whether it can be erased, executed, read or written to), creation date and time of creation. There are a number of options that will allow you to see the file's (or directory's) filing system key (or index the system uses to look a file up). You can list files that have been updated SINCE a certain date or updated (UPTO) before a date. Pattern matching works also with the P or PAT option. You can search for files who's names contain a string with the S option.

Makedir

Makedir does what it says, makes a directory, one at a time. You can specify a path name for the creation, but the path must already exist, it will not make the directories in between.

Path (Workbench 1.2)

PATH allows you to specify multiple paths for searching for commands. Usually, AmigaDOS searches the current directory first and then the C: device to find a file. This was all there was in 1.1 but under 1.2, you can specify multiple paths that the DOS will search through before giving up. This is nice if you have two drives and some of your commands are on the second drive you can add the second drive to the search path. Simple typing PATH SOOW will list the current paths set. PATH ADD <dir> will add that directory to the path list.

This has turned out to be a bit of a pauper's guide to the CLI. It is essential for anyone wanting to use the Amiga as a serious computer, to get a copy of the AmigaDOS manual. In the next article we will look at batch processing - virtually all the other commands we haven't covered here. Batch processing allows you to set up background tasks with RUN and EXECUTE that can happen at particular times of day or dates. Like setting up the Amiga with a run command:

WAIT UNTIL 10:30+ ; about the time the cleaner passes the machine
 SAY "Hello Enid. Are you a busy little Enid!"

Result: one most disturbed house cleaner.

Also, if time and space permits, I will look at the new features of DOS 1.2.

-- Eric Salter

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Connecting a '64 to the Amiga

I am one of those people who have moved up from the Commodore 64. This means that I have many text files which I have generated with my previous word processor. Like many people, I have an inherent dislike of having to repeat a whole heap of typing. As well as that, there really is some good stuff back there which, with a bit of a hair trim, could serve well even today. Also there are those files, in my case Orders of Service, these mean assembling blocks of text and having previously done this, I wanted to be able to transfer text to my Amiga. Well, I have now successfully done that and am glad to be able to share with you how I did this.

The Hardware

I have connected the C64 to the Amiga using an RS232c interface. This is connected to the serial port of the Amiga with a flat 25 wire ribbon cable, even though I am only using 3 of the wires. This hardware is easily recognised by anyone who has used a modem on the C64. The interface is a plug-in cartridge which has some programmable capability.

The Software

For the C64, I am using a modified version of a program which appeared in BYTE Magazine April 1984. It is a Terminal program written in BASIC by John P Russo, who devised it to run the C64 as a terminal on a mainframe computer. I have successfully used this program to transfer data base files which had been converted to straight ASCII files from "Superbase64" onto a SpectrumII. Yes at 300 Baud. It did take a long time, but it saved having to retype the parish database when I left. The alterations I have made are to enable the disk drive to be used rather than the original which used cassette.

For the Amiga I have used a program written in AmigaBASIC by Andrew Hollander and which appeared in Amiga World magazine July/August 1986. The only modification which I have made to this program is to add a WIDTH 70 Statement to the Capture window. Without this I found that my transmissions were being truncated since it was text from a word processor and did not necessarily have a return at the end of every 80 columns. At first this of itself did not seem to write all the text to the file. However whilst I was getting it all on the screen, I wasn't getting it on the disk. I found that the insertion of a WIDTH#2, 70 in the FileNaming section of the program meant that I could store exactly what I was getting on the screen. This meant that I was now sending Text from the C64 and receiving what I had sent on the Amiga and I had it in a file upon which I could use Ed the AmigaDOS Text editor. That was the theory and in practice I set up the system everything worked beautifully. I loaded the C64 Terminal program, I loaded the Amiga with Capture typed in a file name hit return went to the C64 pressed the F3 button typed in the file to be transmitted and away it went. Everything stopped when the EOF was received and I closed the transmission using the mouse and pull down menu.

I then loaded up CLI and typed Ed 'filename' only to find the message "File contains binary". Using Edit I was able to track down the offending glitches which turned out to be the printer control characters which "EasyScript" sent to the printer to turn on the expanded print. It seems the conversion for C64 ASCII to Standard ASCII is not able to convert these characters. I found it easier to simply use Edit to remove the offending characters but a more enthusiastic programming boffin could probably devise some conversion filter if they so desired.

If anyone is interested in this setup I'd be happy to advise them. I'd like to read about a simple way to get text files from an IBM PC.

-- David Peel

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AmigaBASIC and Ed get Bigger Windows

Now that V1.2 of the Amiga system software has been released, we (in Australia where we have PAL TV) are now able to use more scan lines in screen displays than we could under V1.1. The limits now are 256 lines for non-interlaced displays and 512 for interlaced displays. The 28% larger display area is very useful, giving for example 30 lines in the CLI compared to 23 lines previously (28% more display memory is used of course). Unfortunately there is a lot of existing (and probably future) software that either won't recognise, or work properly with the extra display area.

For instance the latest version of AmigaBASIC on the new Extras disk has (many) problems. One is that while it seems to work OK with large screens and windows created by a BASIC program, it has a bug whereby if you resize or drag the list window so it extends below the 200th line, then close the window, when you try to show the list window again you will get an "Illegal function call" error. To get out of this mess you have to SAVE your program, go NEW and LOAD your program again. There is even more trouble with the output window, if you drag the bottom of it below the 200th line (you can't resize the height greater than 200), then close it, you won't be able to get it back at all and you will have to SAVE, then QUIT and restart BASIC again. This is a deplorable situation with a new release of "official" software.

As we probably can't expect a new version of BASIC soon I decided to have a go at fixing the bugs myself. After two days of hacking I have got the bugs beaten, that's no mean task with a 100K+ load file. The accompanying BASIC program, "AmigaBASIC,patch" will do the deed.

A few notes on using it first. The value 256 written to location "hptr" becomes the height of the output window, as well as the height limit for various other windows, don't use any value besides 256 (or 200). The values "x1, y1, x2, y2" are the size of the LIST window, by changing them you can customise the LIST window to the size you want. The numbers are in the same form as when you open a window from a BASIC program. The range of "x" values is 0-617, and for "y" is 0-242. Please enter the hexadecimal numbers carefully, and note the space after the version number "1.2".

```
' AmigaBASIC.patch
' Program to modify "AmigaBASIC" V1.2 to make it work
' properly with the 256 line Workbench display.
'
' By William Miles, 17-Mar-87.
```

DEFINT A - z

```
file$ = "AmigaBASIC"
vptr = &H494E    'version number pointer
hptr = &H57EC    'maximum height pointer
lptr = &H580A    'LIST window coordinate pointer
x1 = 230    'LIST window Left x, min 0
y1 = 11     'LIST window Top y, min 0
x2 = 612    'LIST window Right x, max 617
y2 = 240    'LIST window Bottom y, max 242

OPEN file$ AS #1 LEN = 1
FIELD #1, 1 AS byte$
CALL in(vptr, ver$, 4)
IF ver$ = "1.2" THEN
  CALL out(hptr, MKI$(256))
  CALL out(lptr, MKI$(y1) + MKI$(x1) + MKI$(y2) + MKI$(x2))
  PRINT "Patch completed."
ELSE
  PRINT "Wrong version, patch abandoned."
END IF
CLOSE #1
```

SUB in(addr, buff\$, count) STATIC

SHARED byte\$

buff\$ = ""

FOR i = 1 TO count

GET #1, addr + i

buff\$ = buff\$ + byte\$

NEXT

END SUB

SUB out(addr, buff\$) STATIC

SHARED byte\$

FOR i = 1 TO LEN(buff\$)

LSET byte\$ = MID\$(buff\$, i, 1)

PUT #1, addr + i

NEXT

END SUB

A quickie for the CLI types. The BASIC program called "Ed.patch" will modify the "Ed" editor so that it will start up with a full size window. This works by modifying the AmigaDOS console window specification that reads "RAW:0/0/639/199/Ed 1.14" so that the width and height are the required new values.

Although these programs have been written and tested with due care, the responsibility for their use is yours. DO NOT run these programs on your master disks.

Enough of the serious stuff, I think you will find these changes helpful in your use of the programs, as I have. Happy Workbenching.

-- William Miles

' Ed.patch

```
' Program to modify "Ed" V1.14 to give
' an initial window size of (640 x 256).
```

' by William Miles, 23-Feb-86.

DEFINT A - z

file\$ = "C:Ed"

```
wptr = &H1AA9    'window width & height pointer
vptr = &H1AB4    'version number pointer
```

```
OPEN file$ AS #1 LEN = 1
FIELD #1, 1 AS byte$
CALL in(wptr, ver$, 4)
IF ver$ = "1.14" THEN
  CALL out(wptr, "640/256")
  PRINT "Patch completed."
ELSE
  PRINT "Wrong version, patch abandoned."
END IF
CLOSE #1
```

SUB in(addr, buff\$, count) STATIC

SHARED byte\$

buff\$ = ""

FOR i = 1 TO count

GET #1, addr + i

buff\$ = buff\$ + byte\$

NEXT

END SUB

SUB out(addr, buff\$) STATIC

SHARED byte\$

FOR i = 1 TO LEN(buff\$)

LSET byte\$ = MID\$(buff\$, i, 1)

PUT #1, addr + i

NEXT

END SUB

Happy First Birthday, Amiga!

An Overview of the OPUS System

OPUS is a sophisticated BBS (Bulletin Board System) which supports a broad array of services for the transfer of Electronic Mail and the exchange of Public Domain software.

OPUS supports a large number of file transfer capabilities, specialty file areas, file related services and multiple file exchange protocols, but the real power of **OPUS** lies in its Electronic Mail capabilities. These EM (Electronic Mail) services allow a user to link to a variety of other Bulletin Boards on a National or world wide basis. Such services as private/public Conferencing, multi-BBS discussions, EchoMail and mail file transfer are all available through **OPUS**.

OPUS supports the exchange of Public Domain software files with a variety of popular transfer protocols and includes a sophisticated file management segregation system.

OPUS provides a nearly limitless capability for the exchange of Electronic Mail between personal computers. The ability to keep in touch with another user on a local BBS, in a nearby city, or around the world makes **OPUS** a powerful vehicle for personal communications by its users. Here are a few examples of the kinds of Electronic Mail handled by **OPUS**:

LOCAL MESSAGES: these are messages passed from user to user on the same **OPUS** system or on a nearby system. This is the most common type of EM and serves to tie users together for general discussion or matters of special interest.

THE SIG (Special Interest Group): **OPUS** provides for a large number of special Message Areas available to a select group of users.

PUBLIC DISCUSSIONS AND CONFERENCING: Conferences (special topic Message Areas) need not be only local or private in nature. With **OPUS**, conferencing can be effectively carried on in a local, regional or National or International mode with both impressive speed and low cost delivery.

With the recent (1985/6) development of EchoMail by Jeff Rush, **OPUS** users are now able to participate in a variety of conferences which link SIGs on a National, and even International, basis.

EchoMail is the first conferencing system to make use of the technology inherent in such systems as **OPUS** and Fido. A user need simply enter, or reply to, a message in a special conference area in the same manner as he/she would for a local message to a friend. These messages are then shared with each participating BBS on a daily basis. This results in a variety of timely and highly vivid multi-user discussions on a broad range of topics.

[Editor's note: This short overview of **OPUS**, the system used in our new bulletin board, has been taken from the **OPUS** users manual. The manual is 88k long, and is available on disk from the **Amiga Users Group** for no charge on your own disk at meetings. The disk is also available by mail, free of charge on your own disk if ordered with other Public Domain disks. Unfortunately, under the terms of our licence to use **OPUS**, we are not permitted to charge for the manual, so we cannot supply the manual in printed form. The **OPUS** Manual disk will also contain public domain terminal programs and other public domain programs useful for BBS use.]

OPUS is a trademark of Wynn Wagner III & the POLE of Dallas.

Australian Amiga Groups

We are now exchanging newsletters and information with the following Australian Amiga groups, as well as several overseas groups. We intend to publish this list of other Amiga groups regularly.

Brisbane Amiga User Group
PO Box 853
Toowong
Queensland, 4066

Amiga Mag
PO Box 486
Glenside
South Australia, 5065

Canberra Amiga Users Society
68 Wollongong Street
Fyshwick
ACT, 2609
BBS: (062) 59 1137

Adelaide Amiga Users Group
c/o Mawson High School
Colton Avenue
Hove
South Australia, 5048

Amiga Users of Northern Territory
c/o 4/4 Armidale Street
Stuart Park
Northern Territory, 5790

Northern Amiga
43 Barkly Highway
Mount Isa
Queensland, 4825

If you know of any groups not listed above, please tell us so we can arrange for newsletter and information exchange for our mutual benefit.

Interesting Stuff

Two events tie for "most interesting" this month. The first is that the Amiga is having its first birthday in Australia this month. Yes, it's been 12 months! To celebrate, Commodore is offering \$300 cash-back for new Amiga purchases, meaning that if you are quick, you can get an Amiga with monitor for \$1690! The offer closes on April 11th, so you've only got a few days left.

Commodore has also announced two new members of the Amiga family, the A500 and A2000, and they were on show at PC-87 in Sydney a few weeks ago. No doubt they'll also appear at PC-87 in Melbourne at the end of May. Commodore hopes the A500 will be on sale in late May or early June. Have no fear, the two new machines are 100% software compatible with your current A1000, so you won't get locked out of any new software.

The other interesting event is that the Amiga Users Group is now operating its own Bulletin Board Service (BBS). The phone number is **792 3918**. The system is available 24 hours a day, and you can call it at 300 baud (V21), 1200 baud (V22) or 1200/75 baud (V23). We have decided to use the **OPUS** BBS software, and a very short overview appears elsewhere in this issue. The full **OPUS** users manual is available on disk.

Have you noticed the Nutella commercial on TV? There's an Amiga in it! John Hollands also tells us that the Amiga is soon to make a cameo appearance in TV's Henderson Kids show. Amiga adverts can now be heard on the radio, too.

Several Australian companies are soon to release hardware add-ons for the A1000. An Adelaide company is selling a 1Mbyte RAM expansion for under \$500, with 2Mbyte for under \$1000. A NSW company is about to release a board with memory expansion, SCSI hard-disk interface and battery-backed clock. We are trying to get more details about these and other add-ons, so watch out.

Speaking of 1 year old, the Amiga Users Group is very nearly there too! That means the earliest members will need to renew their memberships soon. Your newsletter label shows the expiry month of your membership. The last newsletter you will get is the month shown on the label. To avoid the rush, why not renew early?

As you will have noticed, this is yet another bumper issue, with 14 pages of articles. With the small type-face used in our newsletter, we manage to squeeze the equivalent of 2 pages on each page. We don't do this because we have shares in an Optical Supply company, we do it because it's cheaper to print this way. Of course, it would be cheaper to print no newsletter at all, and it may turn out that way unless more AUG members submit articles for the newsletter. I had to ring around and hassle articles out of people to fill these pages this month, and just enough came in at the last moment. Please put back into the club some of what you get from it. Share your knowledge with others. If for nothing else, think of your ego. Hundreds of people will see your name in print!

Amiga Users Group Opus BBS **792 3918**
300 baud **1200/75 baud** **1200 baud**
8 data bits **no parity** **1 stop bit**

*Amiga Users Group and OPUS
Your Amiga Information Network***SOFTWARE ORDER FORM**

Disk numbers :

Disks supplied by Amiga User Group @ \$10	\$
-------------------------------------------	----

Disks supplied by member @ \$2	\$
--------------------------------	----

Club Use Only	Receipt #: _____	Mailed on: / /	Total \$
---------------	------------------	----------------	----------

Mail to: **Amiga Users Group, PO Box 48, Boronia, 3155, Victoria.**

Member's Name:

Address:

Application for membership of The Amiga Users Group Inc

Membership is \$20 per year. Send your cheque to: **Amiga Users Group Inc, PO Box 48, Boronia, 3155**

Details on this side are optional

Surname: _____

First name: _____ (no initials)

Address: _____ Postcode: _____

Phone Number: _____ STD Code: _____

What services would you like AUG to provide: _____

Signed: _____ Date: _____

In the event of my admission as a member, I agree to abide by the rules of the Association for the time being in force.

Year of birth: _____ Do you own an Amiga: _____

Occupation: _____

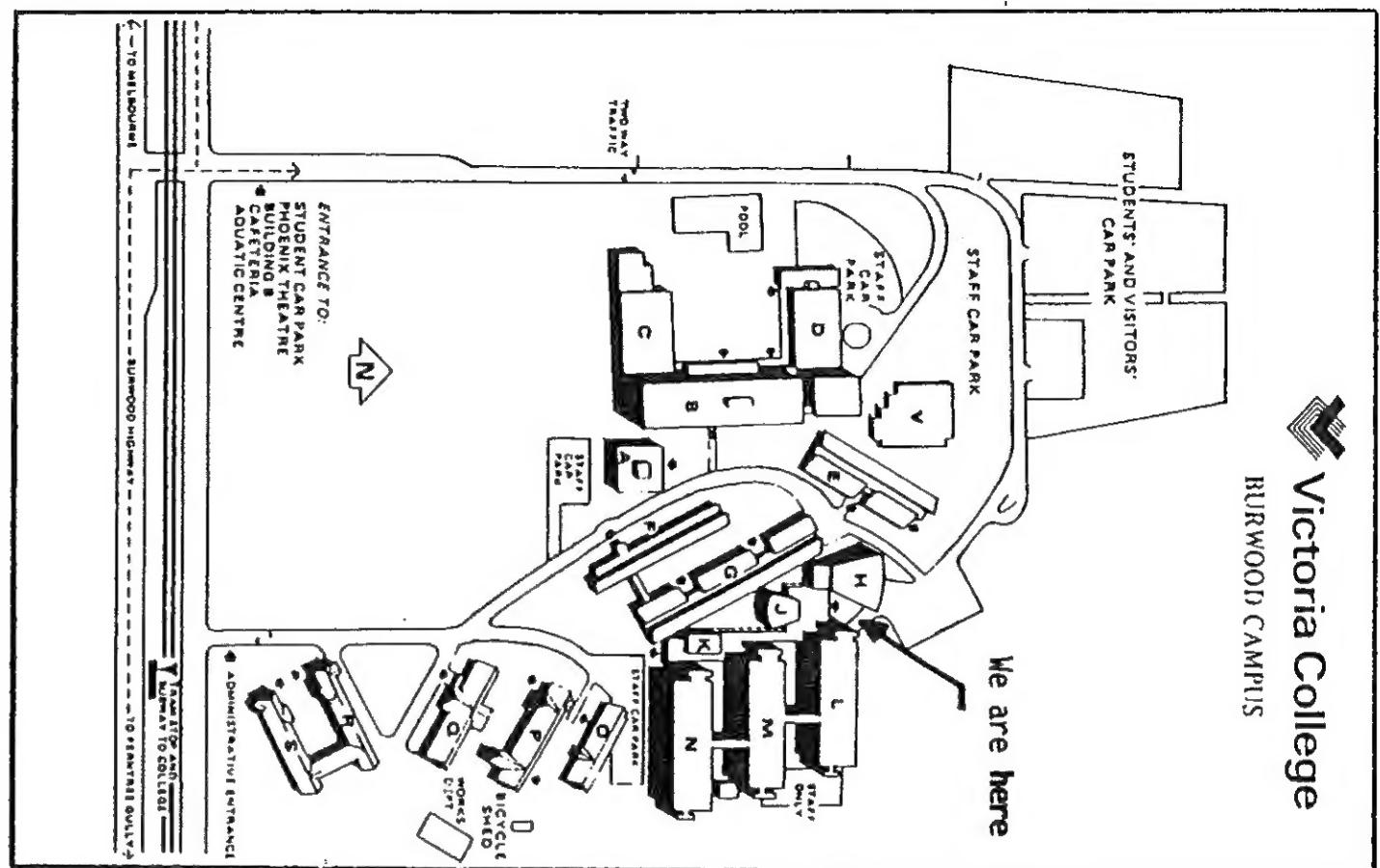
Interests: _____

Dealer's Name: _____

Dealer's Address: _____ Postcode: _____

Are you happy with your dealer: _____

Club Use Only	Date	Paid	Rcpt #	Memb #	Card Sent
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Where is Victoria College Burwood Campus?

New members and visitors sometimes have trouble locating our meeting place the first time. Victoria College is on the North side of Burwood Highway, Burwood, just East of Elgar Road. Coming from the City, turn left at the first set of traffic lights after Elgar Road. Follow the road around past the football oval, over three or four traffic bumps to the car parking areas near the netball courts. Further up the road, to the left, you'll find Lecture Theatre 2. That's us!

If you have a Melways, try Map 61 B5.

April 1987 Amiga Workbench

P.O. Box 48, Boronia, 3155, Victoria, Australia

AMIGA Users Group

AMIGA Workbench

Registered by Australia Post

Publication No: VBG7930

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